



**Billing Code: 4310–55**

## **DEPARTMENT OF THE INTERIOR**

### **Fish and Wildlife Service**

**[FWS–R8–ES–2014–N190; FXFR1337088SSO0]**

### **Marine Mammals; Incidental Take During Specified Activities; Proposed Incidental Harassment Authorization**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of receipt of application and proposed incidental harassment authorization; request for comments.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), have received an application from the United States Coast Guard (USCG) for authorization to take small numbers of marine mammals by harassment incidental to the replacement of pier piles and the potable water line at USCG Station Monterey in Monterey County, California. In accordance with provisions of the Marine Mammal Protection Act of 1972 (MMPA), as amended, we request comments on our proposed authorization for the applicant to incidentally take, by harassment, small numbers of southern sea otters from November 1, 2014, to October 31, 2015. We anticipate no take by

injury or death and include none in this proposed authorization, which would be for take by harassment only.

**DATES:** Comments and information must be received by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** You may submit comments by any one of the following methods:

1. *U.S. mail or hand-delivery:* Steve Henry, Field Supervisor, Ventura Fish and Wildlife Office, 2493 Portola Road, Suite B, Ventura, CA 93003.
2. *Fax:* 805-644-3958, attention to Steve Henry, Field Supervisor.
3. *Electronic mail (email):* R8\_SSO-IHA\_Comment@fws.gov. Please include your name and U.S. mail address in your message.

Electronic copies of the incidental harassment authorization request, the Final Environmental Assessment (EA), and Marine Mammal Monitoring Plan may be obtained by writing to the address specified above, telephoning the contact listed in **FOR FURTHER INFORMATION CONTACT**, or visiting the Internet at <http://www.fws.gov/ventura/endangered/species/info/sso.html>. Documents cited in this notice may also be viewed, by appointment, during regular business hours, at the aforementioned U.S. mail address.

**FOR FURTHER INFORMATION CONTACT:** To request copies of the application, the list of references used in this notice, and other supporting materials, contact Lilian Carswell at the address in **ADDRESSES**, or by email at [Lilian\\_Carswell@fws.gov](mailto:Lilian_Carswell@fws.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Background**

Sections 101(a)(5)(A) and (D) of the MMPA, as amended (16 U.S.C. 1371 (a)(5)(A) and (D)), authorize the Secretary of the Interior to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region, provided that we make certain findings and either issue regulations or, if the taking is limited to harassment, provide a notice of a proposed authorization to the public for review and comment.

We may grant authorization to incidentally take marine mammals if we find that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses. As part of the authorization process, we prescribe permissible methods of taking and other means of effecting the least practicable impact on the species or stock and its habitat, and requirements pertaining to the monitoring and reporting of such takings.

The term “take,” as defined by the MMPA, means to harass, hunt, capture, or kill, or to attempt to harass, hunt, capture, or kill, any marine mammal. Harassment, as defined by the MMPA, means “any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [the MMPA calls this Level A harassment], or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [the MMPA calls this Level B harassment].”

The terms “negligible impact,” “small numbers,” and “unmitigable adverse impact” are defined in 50 CFR 18.27, the Service’s regulations governing take of small numbers of marine mammals incidental to specified activities. “Negligible impact” is defined as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.” The term “small numbers” is also defined in the regulations, but we do not rely on that definition here, as it conflates the terms “small numbers” and “negligible impact,” which we recognize as two separate and distinct requirements. Instead, in our small numbers determination, we evaluate whether the number of marine mammals likely to be taken is small relative to the size of the overall population. “Unmitigable adverse impact” is defined as “an impact resulting from the specified activity (1) that is likely to reduce the availability of the species to a level insufficient for a harvest to meet subsistence needs by (i) causing the marine mammals to abandon or avoid hunting areas, (ii) directly displacing subsistence users, or (iii) placing physical barriers between the marine mammals and the subsistence hunters; and (2) that cannot be sufficiently mitigated by other measures to increase the availability of marine mammals to allow subsistence needs to be met.” The subsistence provision applies to northern sea otters (*Enhydra lutris kenyoni*) in Alaska but not to southern sea otters (from here forward, “sea otters”).

### **Summary of Request**

In July 2013, we received a request from the USCG (Applicant) for MMPA authorization to take by harassment southern sea otters (*Enhydra lutris nereis*) incidental to the replacement of pier piles and the potable water line at USCG Station Monterey in Monterey Harbor, California.

The Applicant proposes to remove and replace 17 timber piles that structurally support the patrol boat pier (Pier), replace the existing potable water line, and improve associated structures to maintain the structural integrity of the Pier and potable water line. Pile driving activities would be limited to the period from June 15 to October 15, but other construction activities could occur at any time during the 1-year authorization window. On April 3, 2014, we were notified that, due to Federal funding issues affecting its contracting timelines, the USCG was requesting that the start date of its 1-year authorization window be delayed to September 2014. On June 20, 2014, we were notified that the USCG was requesting another delay in its start date, to October 15, 2014. A detailed description of the proposed action is contained in the incidental harassment authorization request submitted to us by the USCG (URS 2013). The proposed action is expected to result in take, by Level B Harassment only, of sea otters.

### **Description of the Activity**

The proposed action would involve removing the existing timber deck, timber stringers, steel pile caps, steel support beams, and hardware to access the 17 timber piles that need to be replaced. The timber piles, which are approximately 14 to 16 inches (in) (36 to 41 centimeters (cm)) in diameter and covered with polyvinyl chloride (PVC) wraps, would be removed by means of a vibratory extractor. Each timber pile would be replaced with a steel pipe pile up to 18 in (46 cm) in diameter, with 0.5 in (1.3 cm) thick walls. Each steel pipe pile would be positioned and installed in the footprint of the extracted timber pile. The new steel pipe piles would not be filled with concrete. Other material and hardware removed to conduct the pile replacement would be replaced with in-kind materials. Due to dense substrate at the project site, a majority of the steel pipe pile installation would likely require impact pile driving, but

vibratory pile driving would be conducted to the extent feasible, with an impact hammer used for proofing the piles. Pre-drilling would be permitted but discontinued when the pile tip is approximately 5 feet (ft) (1.5 meters (m)) above the required pile tip elevation. If the steel pipe pile could not be driven 30 ft (9 m) below the mudline with an impact hammer due to the substrate or jetty armor, the pile would be posted onto the armor stone using 36 in (91 cm) diameter concrete pedestals and dowels anchored into the armor stone. Concrete slurry would be used to cement stone within 5 ft (1.5 m) of posted steel pipe piles to further secure the piles.

Pile extraction and driving equipment would not be located on the existing Pier but on a barge positioned in a manner that would not impede access to the floating docks or disrupt Pier access. The barge would be secured so that pedestrians would not be able to access it. Several proposed ancillary repairs to the Pier deck and floating dock are associated with this project. Specifically, under-deck repairs would involve restoring bearings at pedestals and sea walls with non-shrink grout pads and replacing underwater pile struts. Above-deck repairs would include removing abandoned mooring hardware, replacing missing sections of curb, and replacing isolated deck planks that have deteriorated. Repairs to the floating dock would include repairing tie rods, repairing concrete spall, relocating and securing gangway wear plate(s), replacing cleats, replacing missing rubstrips, and replacing underwater pile struts.

Best management practices would be employed during demolition and construction activities to prevent debris from falling into the water. A sound attenuation system (bubble curtain) would be used during impact hammer pile driving. The bubble curtain creates an underwater wall of air around the pile to dissipate in-water sound waves. The Applicant has proposed additional measures to reduce impacts on marine mammals. We discuss these measures below under “Mitigation Measures.”

To facilitate supplementary monitoring of effects on sea otters in or near the project area, the Service has requested, and the USCG has agreed to provide, 24-hour advance notice of pile driving activity and a record of the start and stop times of all pile driving activities once they are completed.

a. Timing of Activity

The proposed pile extraction and driving activities would occur between June 15 and October 15 of 2015. Pile driving activities would be expected to require no more than 10 days of the total construction time, with a maximum of 60 to 70 minutes of pile driving occurring per day. In total, approximately 10 to 12 hours of underwater and airborne noise would be expected to result from pile driving and extraction activities associated with the proposed action. Other construction activities could occur at any time during the November 1, 2014, to October 31, 2015, authorization window and would likely require a maximum of 60 work days for completion.

b. Geographic Location of Activity

The USCG Station Monterey is located at 100 Lighthouse Avenue, in the city and county of Monterey, California. The Pier is on the eastern portion of the USCG Station's waterfront facility, along a jetty that extends approximately 1,300 ft (396 m) east into Monterey Harbor. The Pier and floating docks are on the southern side of the jetty.

### **Description of Marine Mammals in the Area of the Activity**

Several species of marine mammals occur in the proposed construction area, including the Pacific harbor seal (*Phoca vitulina richardsi*), California sea lion (*Zalophus californianus*),

harbor porpoise (*Phocoena phocoena*), killer whale (*Orcinus orca*), and gray whale (*Eschrichtius robustus*). These species are under the jurisdiction of the National Marine Fisheries Service and are considered under a separate proposed IHA notice (79 FR 13991; March 12, 2014). The only marine mammal species under the jurisdiction of the Service that occurs in the proposed construction area is the sea otter.

Southern sea otters are listed as threatened under the Endangered Species Act of 1973, as amended (ESA) (42 FR 2965; January 14, 1977), and, because of their threatened status, are automatically considered “depleted” under the MMPA. The State of California also recognizes the sea otter as a fully protected mammal (Fish and Game Code section 4700) and as a protected marine mammal (Fish and Game Code section 4500). All members of the sea otter population in California are descendants of a small group that survived the fur trade and persisted near Big Sur, California. Historically ranging from at least as far north as Oregon (Valentine et al. 2008) to Punta Abreojos, Baja California, Mexico, in the south, sea otters currently occur in only two areas of California. The mainland population ranges from San Mateo County to Santa Barbara County, and a translocated population exists at San Nicolas Island. The most recent (2013) California-wide index of abundance is 2,941 individuals ([www.werc.usgs.gov/seaottercount](http://www.werc.usgs.gov/seaottercount)). Additional general information on status and trends of the sea otter may be found in the stock assessment report, available at <http://www.fws.gov/ventura/endangered/species/info/sso.html>.

Sea otters occur in the Monterey Bay Harbor area year round. Census data for 2013 and 2014 indicate that there are, on average, three to four sea otters per 1,640 ft (500 m) of coastline within Monterey Harbor and in the immediately adjacent shoreline areas (U.S. Geological Survey (USGS) 2013, 2014). Figure 6-2 of URS (2013) shows the expected extent of attenuated underwater noise resulting from the proposed project to thresholds of 190, 180, and 160 decibels



(dB) re 1 micro-Pascal ( $\mu\text{Pa}$ ) root mean square (RMS). Direct observations indicate that approximately six independent (adult or juvenile) sea otters utilize the area expected to be exposed to underwater noise of 160 dB or higher, about half of which are adult females with pups (Staedler, pers. comm. 2014). Sea otters typically use this area to rest and to forage. In areas close to the proposed project location (within the modeled underwater 180 to 190 dB zone), sea otters occasionally use a passage through the rocks to access the kelp beds north of the jetty from the harbor (M. Staedler, Monterey Bay Aquarium Sea Otter Research and Conservation Program, pers. comm. 2014).

### **Potential Impacts of the Proposed Action on Sea Otters**

In this section we provide a qualitative discussion of the potential impacts of the proposed project. The “Estimated Take by Incidental Harassment” section later in this document includes a quantitative analysis of the number of individuals that may be taken by Level B harassment as a result of this activity.

Marine mammals exposed to high-intensity sound repeatedly or for prolonged periods can experience hearing threshold shift (TS), which is the loss of hearing sensitivity at certain frequency ranges (Kastak et al. 1999; Schlundt et al. 2000; Finneran et al. 2002, 2005). A permanent threshold shift (PTS) is said to occur when the loss of hearing sensitivity is unrecoverable, whereas a temporary threshold shift (TTS) is said to occur when the animal’s hearing threshold recovers over time (Southall et al. 2007). Noise exposures resulting in TTS can cause PTS if repeated over time. Chronic exposure to excessive, but not high-intensity, noise can cause masking at the frequency band that some animals utilize for vital biological

functions (Clark et al. 2009). Noise can also cause other forms of disturbance when marine mammals alter their normal patterns of behavior to move away from the source.

Relatively little is known regarding the effects of noise on sea otters, but they have not been reported to be particularly sensitive to noise disturbance, especially in comparison to other marine mammals (Riedman 1983, 1984). Many marine mammals depend on acoustic cues for vital biological functions, such as orientation, communication, locating prey, and avoiding predators. However, sea otters are not known to use acoustic information to orient or to locate prey, nor are they known to communicate underwater. Ghaul and Reichmuth (in press) obtained aerial and underwater audiograms for a captive adult male sea otter and evaluated his hearing in the presence of noise. In air, the sea otter's hearing was similar to that of a sea lion but less sensitive to high-frequency (greater than 22 kHz) and low-frequency (less than 2 kHz) sounds than terrestrial mustelids. Underwater, the sea otter's hearing was less sensitive than that of sea lions and other pinnipeds, particularly at frequencies below 1 kHz. Critical ratios were more than 10 dB above those measured in pinnipeds, suggesting that sea otters have a relatively poor capacity to detect acoustic signals in noise.

Observed responses of wild sea otters to disturbance are highly variable, probably reflecting the level of noise and activity to which they have been exposed and become acclimated over time and the particular location and social or behavioral state of that individual (G. Bentall, Monterey Bay Aquarium Sea Otter Research and Conservation Program, pers. comm. 2010). Sea otters appeared to be relatively undisturbed by pile driving activities in Elkhorn Slough during the construction of the Parsons Slough Sill, with many showing no response to pile driving and generally reacting more strongly to passing vessels associated with construction than to the sounds of machinery (Elkhorn Slough National Estuarine Research

Reserve (ESNERR) 2011). However, these animals were likely acclimated to loud noises, as they occupied an area near an active railroad track, which produced in-air sound levels comparable to those produced by the vibratory driving of H piles (ESNERR 2011).

The most likely effect of the proposed project on sea otters is behavioral disturbance due to construction noise and activity. Potentially affected areas include the harbor and the area immediately north of the jetty. Underwater and airborne noise generated by pile replacement work may cause sea otters that rest or forage within or near the harbor to relocate temporarily to nearby areas. Behavioral changes resulting from disturbance could include startle responses, the interruption of resting behaviors (while in-water or hauled out on nearby docks), and changes in foraging patterns. Most likely, sea otters would move away from the noise source and would be temporarily displaced from the pile replacement work area.

The National Marine Fisheries Service (NMFS) employs acoustic exposure criteria to define Level A harassment (injury) and Level B harassment (disturbance) resulting from sound for the marine mammal species under its jurisdiction. For underwater noise, NMFS currently uses 180 and 190 dB re 1  $\mu$ Pa (received levels) as the thresholds for Level A harassment of cetaceans and pinnipeds, respectively. NMFS uses 120 and 160 dB re 1  $\mu$ Pa (received levels) as the thresholds for Level B harassment due to non-impulsive (vibratory pile driving and removal) and impulsive (impact pile driving) sources, respectively, for both cetaceans and pinnipeds. For airborne noise, NMFS uses 90 and 100 dB re 20  $\mu$ Pa (received levels) as a guideline (but not formal threshold) for the onset of Level B harassment for harbor seals and all other pinnipeds, respectively (79 FR 13991; March 12, 2014). NMFS does not have a guideline for the onset of Level A harassment of pinnipeds by airborne noise (A. Scholik-Schlomer, Office of Protected Resources, Marine Mammal and Sea Turtle Conservation Division, pers. comm. 2014).

However, Southall et al. (2007) propose an injury criterion for sea lions exposed to airborne noise of 172.5 dB re 20  $\mu$ Pa.

In the absence of sufficient data on which to base noise exposure thresholds specific to sea otters, but in light of evidence suggesting that the hearing sensitivities of sea lions and sea otters are generally comparable (although underwater, sea otter hearing appears to be less sensitive than sea lion hearing), we use the thresholds, guidelines, and criteria applicable to sea lions as proxies. With regard to underwater noise, we use the thresholds adopted by NMFS for pinnipeds (e.g., sea lions) to evaluate whether noise exposure levels would constitute Level A or Level B harassment of sea otters. With regard to airborne noise, we use the guideline that NMFS uses for pinnipeds other than harbor seals to evaluate whether anticipated exposure levels resulting from this project would constitute Level B harassment of sea otters and the injury criterion proposed in Southall et al. (2007) for sea lions to evaluate whether the anticipated airborne noise exposures would constitute Level A harassment. Specifically, we use 190 dB re 1  $\mu$ Pa as the threshold for Level A harassment underwater and 120 dB re 1  $\mu$ Pa (for non-impulse sources) and 160 dB re 1  $\mu$ Pa (for impulse sources) as the thresholds for Level B harassment underwater. Similarly, we adopt for sea otters the 100 dB re 20  $\mu$ Pa guideline that NMFS uses for in-air Level B harassment of pinnipeds other than harbor seals. We use the Southall et al. (2007) criterion of 172.5 dB re 20  $\mu$ Pa for sea lions to approximate the airborne noise levels that may cause injury to sea otters.

### **Potential Effects of the Proposed Action on Sea Otter Habitat**

No permanent impacts on habitat are proposed or would occur as a result of this project. The Proposed Action would not increase the Pier's existing footprint, and no new

structures would be installed that would result in the loss of additional habitat. Therefore, no restoration of habitat would be necessary. A temporary, small-scale loss of foraging habitat may occur if sea otters leave the area during pile extraction and driving activities.

### **Potential Impacts on Subsistence Needs**

The subsistence provision of the MMPA does not apply.

### **Mitigation Measures**

The USCG has proposed the following measures to prevent Level A harassment (injury) and to reduce the extent of potential effects from Level B harassment (disturbance) to marine mammals.

1. Noise attenuation: Noise attenuation systems (i.e., bubble curtains) would be used during all impact pile driving to interrupt the acoustic pressure and reduce the impact on marine mammals. By reducing underwater sound pressure levels at the source, bubble curtains would minimize the size of the Level A harassment exclusion zone and reduce the area within which Level B harassment would occur, thereby minimizing the number of sea otters affected.

2. Establishment of Level A and Level B harassment zones based on in-water and in-air empirical sound measurements of pile driving and removal: A Level A harassment exclusion zone would include all areas where underwater sound pressure levels were expected to reach or exceed 190 dB re 1  $\mu$ Pa. Modeled distances to the 190 dB isopleth are 33 ft (10 m) or less for attenuated noise and 75 ft (23 m) or less for unattenuated noise. To provide a margin of safety, a provisional conservative exclusion zone would be established during initial pile extraction and driving efforts while hydroacoustic measurements were made to establish actual field conditions. A bubble curtain would be employed, but during initial pile extraction and driving, the exclusion

zone would be set at the modeled distances for unattenuated noise. The Level A and Level B harassment zones would be adjusted, in consultation with NMFS and the Service, once field conditions for impulse and non-impulse noise sources were established through hydroacoustic monitoring. Airborne noise monitoring would also be conducted to ensure that noise levels were consistent with those anticipated. Regardless of the results of field measurements, the radius of the Level A exclusion zone would be a minimum of 33 ft (10 m) to prevent the injury of sea otters from machinery. An exclusion zone of this radius would also preclude the possibility that sea otters could be exposed to airborne noise levels with the potential to cause injury. Airborne noise levels from pile driving at a distance of 33 ft (10 m) from the source are expected to be 104 dB re 20  $\mu$ Pa for vibratory driving and 116 dB re 20  $\mu$ Pa for impact driving (K. Bayer, URS, pers. comm. 2014). These noise levels are well below the potential threshold for injury, 172.5 dB re 20  $\mu$ Pa.

3. Visual monitoring and shutdown procedures: The exclusion zone would be monitored visually prior to any pile extraction and driving activities to ensure that the area was clear of any sea otters. Pile extraction or driving would not commence (or re-commence following a shutdown) until sea otters were not sighted within the exclusion zone for a 15-minute period. If a sea otter entered the exclusion zone during pile replacement work, work would stop until the animal left the exclusion zone. Monitoring would be conducted by qualified observers familiar with marine mammal species, including sea otters, and their behavior. The observer would monitor the exclusion zone from the best vantage point possible (the Pier itself, the jetty, or adjacent boat docks in the harbor) to determine whether sea otters entered the exclusion zone.

4. Soft-start procedures: A “soft-start” technique would be used to allow sea otters to vacate the area before the pile driver reached full power. For vibratory hammers, the contractor

would initiate the driving or extraction for 15 seconds at reduced energy, followed by a 1-minute waiting period. This procedure would be repeated two additional times before continuous driving or extraction proceeded. For impact driving, an initial set of three strikes would be made by the hammer at 40 percent energy, followed by a 1-minute waiting period and two subsequent three-strike sets before the initiation of continuous driving. A soft start would be used in any instance following a down time of 30 minutes or more.

5. Daylight construction period: Work would occur only during daylight hours (7 a.m. to 7 p.m.) to facilitate visual observation of the exclusion zone.

### **Monitoring and Reporting**

The USCG would follow two detailed monitoring plans: one for conducting acoustic measurements and one for documenting marine mammal observations. The acoustic monitoring plan would ensure that measurements are recorded to provide data on actual noise levels during construction and provide data to ensure that the marine mammal exclusion zone is enforced during pile extraction and driving activities. The marine mammal monitoring plan would provide details on data collection for each marine mammal species observed in the project area during the construction period. Monitoring would include the following: marine mammal behavior observations, count of the individuals observed, and the frequency of the observations.

#### **Acoustic Monitoring**

Both underwater and airborne noise would be measured. Hydroacoustic monitoring would be conducted by a qualified monitor during pile extraction and driving activities. Details would be developed during work plan preparation, but could include monitoring one pile in every set of three piles during installation. A reference location would be established at the

estimated 180 dB contour (approximately 330 ft (100 m) from the pile). Noise measurements would be taken at the reference location and at locations every 20 ft (6 m) until the 180 dB level (Level A threshold) is found. Measurements would be taken at two depths: one in mid-water column, and one near the bottom but at least 3 ft (0.9 m) above the bottom. Marine mammal exclusion zones would be adjusted according to the results of this monitoring. Additional acoustical monitoring details would be developed in conjunction with NMFS and the Service prior to the start of construction.

Airborne noise monitoring would be conducted at two locations. One location would be at 49 to 98 ft (15 to 30 m) from the pile driving operation to provide near-source noise measurements. This location would likely be a fixed position with an intended clear view of pile driving operations. The second system would be established at the haul-out area on the jetty. The actual position would be determined in the field, depending on access and security issues. This position is anticipated to be 262 to 492 ft (80 to 150 m) from the piles driven. Airborne sound levels would be continuously monitored for the duration of pile extraction or installation. The maximum 1/8th second average (i.e.,  $L_{max}$ ) of each 1 second (or pile strike) and the energy average level ( $L_{eq}$ ) for each pile would be measured in real time. Airborne sound levels would be measured in decibels referenced to 20  $\mu$ Pa.

#### Marine Mammal Monitoring and Reporting

The USCG would employ protected species observers trained in marine mammal identification and behavior and approved by NMFS and the Service.

- Biological monitoring would occur on two separate days within one week before the first day of construction to establish baseline observations. Baseline observations would be used for comparison with observations during pile driving and removal activities.



- Monitoring for marine mammal presence would commence 30 minutes before any pile driving or removal activities and conclude 30 minutes after any pile driving or removal activities.
- Monitoring of marine mammals around the construction site would be conducted using high-quality binoculars as necessary (e.g., Zeiss, 10 × 42 power).
- Marine mammal visual monitoring would occur from the best vantage points available, including the USCG Pier, jetty, adjacent docks within the harbor, or watercraft, in order to maintain a comprehensive view of the exclusion zone and adjacent areas during the survey period. Monitors would be equipped with radios or cell phones for maintaining contact with work crews.
- Vessel-based visual marine mammal monitoring within the 120 dB and 160 dB level B harassment zones would be conducted during 10 percent of the vibratory pile driving and removal and impact pile driving activities, respectively.
- Data collection would consist of a count of all marine mammals by species, a description of behavior (if possible), location, direction of movement, type of construction that is occurring, time that pile replacement work begins and ends, any acoustic or visual disturbance, and time of the observation. Environmental conditions such as weather, visibility, temperature, tide level, current, and sea state would also be recorded.
- Weekly monitoring reports that summarize the monitoring results, construction activities, and environmental conditions would be submitted to NMFS and the Service.
- A final report would be submitted to NMFS and the Service within 90 days after completion of the proposed project.

- The Service would require the USCG to notify the Service's Ventura Fish and Wildlife Office and the Monterey Bay Aquarium by telephone within one hour of sighting an injured sea otter in the vicinity of the construction site, or within 24 hours of sighting a dead sea otter in the vicinity of the construction site. The USCG would be required to provide a description of the condition of the animal(s) or carcass(es), location, time of discovery, observed behavior (if alive), and photographic or video documentation, if available. In the unanticipated event that the construction activities clearly caused the injury or death of a sea otter, the USCG would be required immediately to suspend all activities and immediately to report the incident by telephone to the Service's Ventura Fish and Wildlife Office and the Monterey Bay Aquarium. The USCG would not be permitted to resume activities until notified by the Service by email, letter, or telephone.

### **Estimated Take by Incidental Harassment**

Based on the proposed construction methodology and mitigation, including use of an exclusion zone, no Level A harassment is anticipated as a result of the proposed project. Behavioral harassment (Level B) will be considered to have occurred when sea otters are exposed to (1) in-air noise of 100 dB or greater or (2) underwater noise of 160 dB RMS or greater for impulse noise (impact pile driving) and 120 dB RMS for continuous noise (vibratory pile extraction and driving). For continuous noise, RMS levels are based on a time constant of 10 seconds, and those RMS levels should be averaged across the entire event. For impact pile driving, the overall RMS level should be characterized by integrating sound energy for each acoustic pulse across 90 percent of the acoustic energy in each pulse, and averaging all the RMS levels for all pulses.

URS (2013) estimated the number of exposures of sea otters to underwater and airborne sound, using a formula based on the following assumptions:

- All piles to be installed would have a noise disturbance distance equal to the pile that causes the greatest noise disturbance (i.e., the piling furthest from shore, in this case the easternmost pile along the jetty).
- An average of two or three piles would be installed and removed per day. The best estimate of the number of days during which pile driving would occur is 10 days, and this was used in all modeling calculations.
- Mitigation (e.g., a noise attenuation system such as a bubble curtain) would be used during impact pile driving.
- An individual sea otter can only be taken once per method of installation during a 24-hour period.

URS (2013) calculated the number of exposures using the following formula: Take Estimate =  $n$  multiplied by AOI multiplied by 10 days of activity, where:  $n$  (number of animals per unit area) is the density estimate used for each species (for the sea otter, the unit of area is linear km of coastline) and AOI (area of influence) is the area encompassed by all locations where the sound pressure levels equal or exceed the threshold being evaluated. Multiplying  $n$  by AOI produces an estimate of the abundance of animals that could be present in the area of exposure per day. Because the final take estimate must be a whole number, values are rounded up to the next whole number.

The AOI impact is the estimated range of noise impact for a given threshold. Because the work will be conducted near the jetty, underwater noise is not expected to spread spherically from the source. Underwater noise contours were therefore modeled using SoundPlan. The

contours were then imported to ArcGIS to calculate the area within the contours and determine the AOI for each threshold. The AOI for vibratory pile driving encompasses the area out to the 120 dB isopleth (Level B threshold), while the AOI for impact driving encompasses the area out to the 160 dB isopleth (Level B threshold). It is assumed that an underwater noise attenuation system, such as a bubble curtain with an estimated 10 dB attenuation, would be used as a mitigation measure. However, the actual attenuation that will be achieved in the field is unknown and would likely vary with each installation. Airborne noise would spread spherically from the source; therefore, the AOI for airborne impacts was calculated as the area within a circle (Area =  $\pi r^2$  multiplied by radius squared).

Although 10 days of total in-water work are proposed, pile extraction or driving would only occur periodically during that time. An average work day (beginning 2 hours after sunrise and ending 2 hours before sunset) is approximately 8 to 9 hours, depending on the month. Although it is anticipated that only 60 to 70 minutes would be spent pile driving per day, to take into account deviations from the estimated times for pile installation and extraction, and to account for the additional use of the impact pile driver in case of failure of the vibratory hammer to reach the desired embedment depth, the potential impacts were modeled as if the entire day could be spent pile driving.

Based on these assumptions and an abundance of 8 sea otters per 0.62 mile (1 kilometer) of coastline for the Monterey Harbor and adjacent areas (USGS 2012), URS estimated that during 10 days of pile driving, there could be 44 exposures to underwater sound within the 160 dB threshold zone for impact driving, 480 exposures to underwater sound within the 120 dB threshold zone for vibratory driving, 10 exposures to airborne sound resulting from impact driving, and 4 exposures to airborne sound resulting from vibratory driving (URS 2013).

Approximately 8 sea otters occur in the area that would be exposed to impulsive underwater noise of 160 dB or greater, and approximately 48 sea otters occur within the entire area that could be exposed to project-related sound exceeding the Level B harassment thresholds (defined by the 120 dB threshold for continuous underwater noise, which is larger than and encompasses all other threshold zones).

Thus, we expect 44 potential exposures (for up to 8 otters) within the 160 dB (underwater impulsive) threshold zone and 494 potential exposures (for up to 48 otters) within the 120 dB (underwater continuous) or 100 dB (airborne) threshold zones.

## **Findings**

We propose the following findings regarding this action:

### Negligible Impact

We find that any incidental take by harassment that is reasonably likely to result from the proposed project would not adversely affect the sea otter by means of effects on rates of recruitment or survival, and would, therefore, have no more than a negligible impact on the stock. In making this finding, we considered the best available scientific information, including: (1) The biological and behavioral characteristics of the species; (2) information on distribution and abundance of sea otters within the area of the proposed activity; (3) the potential sources of disturbance during the proposed activity; and (4) the potential response of sea otters to disturbance.

The estimated 44 potential exposures (for up to 8 otters) within the 160 dB (underwater impulsive) threshold zone and 494 potential exposures (for up to 48 otters) within the 120 dB

(underwater continuous) or 100 dB (airborne) threshold zones are expected to result in negligible impact, because sea otters do not appear to be particularly sensitive to noise (and often do not react visibly to it) and because any behavioral reactions to noise are expected to be temporary and of short duration. In particular, the estimate of the number of sea otters that would be harassed by exposure to project-related sound based on the 120 dB threshold may overstate impacts, because this threshold is sometimes at or even below the ambient noise level in certain locations. For instance, Illingworth & Rodkin, Inc., measured ambient noise levels in the Monterey Harbor in the project area and found that ambient sounds were in the 110 to 120 dB range, with frequent acoustic events, such as boat traffic, resulting in sound levels that exceeded 120 dB (URS 2013, Appendix A).

The mitigation measures outlined above are intended to minimize the number of sea otters that could be disturbed by the proposed activity. Any impacts to individuals are expected to be limited to Level B harassment of short duration. Responses of sea otters to disturbance would most likely be common behaviors such as diving and/or swimming away from the source of the disturbance. No take by injury or death is anticipated. Because any Level B harassment that occurs would be of short duration, and because no take by injury or death is anticipated, we find that the anticipated harassment caused by the proposed activities is not expected to adversely affect the species or stock through effects on annual rates of recruitment or survival.

Our finding of negligible impact applies to incidental take associated with the proposed activity as mitigated through this authorization process. This authorization establishes monitoring and reporting requirements to evaluate the potential impacts of the authorized activities, as well as mitigation measures designed to minimize interactions with, and impacts to, sea otters.

### Small Numbers

For small numbers take analysis, the statute and legislative history do not expressly require a specific type of numbers analysis, leaving the determination of “small” to the agency’s discretion. The sea otter population in California consists of approximately 2,941 animals. The number of sea otters that could potentially be taken by harassment in association with the proposed project, approximately 48 animals, is 1.6 percent of the population size. We find that the number of sea otters utilizing the affected area is small relative to the size of the population.

### Impact on Subsistence

The subsistence provision of the MMPA does not apply to southern sea otters.

### **Endangered Species Act**

The proposed activity will occur within the range of the southern sea otter, which is listed as threatened under the ESA. The Applicant has initiated interagency consultation under section 7 of the ESA with the Service’s Ventura Fish and Wildlife Office. We will also complete intra-Service section 7 consultation on our proposed issuance of the IHA.

### **National Environmental Policy Act (NEPA)**

The impacts associated with the project are described in a final EA prepared on behalf of the USCG (URS 2014). The Service will review the EA and decide either to adopt it or prepare its own NEPA document before making a determination on the issuance of an IHA. Our analysis

will be completed prior to issuance or denial of the IHA and will be available at <http://www.fws.gov/ventura/endangered/species/info/sso.html>.

### **Government-to-Government Relations with Native American Tribal Governments**

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), Executive Order 13175, Secretarial Order 3225, and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with federally recognized Tribes on a Government-to-Government basis. We have evaluated possible effects on federally recognized Indian Tribes and have determined that there are no effects.

### **Proposed Authorization**

The Service proposes to issue an IHA for small numbers of sea otters harassed incidentally by the Applicant while the applicant is completing waterfront repairs at USCG Station Monterey, with a 1-year authorization window beginning November 1, 2014, and ending October 31, 2015. Authorization for incidental take beyond this period would require a request for renewal.

The final IHA would incorporate the mitigation, monitoring, and reporting requirements discussed in this proposal. The Applicant would be responsible for following those requirements. These authorizations would not allow the intentional taking of sea otters.

If the level of activity exceeded that described by the Applicant, or the level or nature of take exceeded those projected here, the Service would reevaluate its findings. The Secretary



may modify, suspend, or revoke an authorization if the findings are not accurate or the conditions described in this notice are not being met.

### **Request for Public Comments**

The Service requests interested persons to submit comments and information concerning this proposed IHA. Consistent with section 101(a)(5)(D)(iii) of the MMPA, we are opening the comment period on this proposed authorization for 30 days (see **DATES**).

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

**Dated: September 23, 2014.**\_\_\_\_\_

---

**Polly Wheeler,**

**Acting Deputy Regional Director, Pacific Southwest Region.**

[FR Doc. 2014-23233 Filed 09/29/2014 at 8:45 am; Publication Date: 09/30/2014]